



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,851	06/11/2002	Steven D. Cech	PSS 2 0066	3678

7590 01/27/2004

Richard J Minnich  
Fay Sharpe Fagan Minnich & Mckee  
1100 Superior Avenue 7th Floor  
Cleveland, OH 44114-2518

EXAMINER

STAFIRA, MICHAEL PATRICK

ART UNIT	PAPER NUMBER
----------	--------------

2877

DATE MAILED: 01/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/980,851

Applicant(s)

CECH, STEVEN D.

Examiner

Michael P. Stafira

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4,11,12,18-21,28,29 are rejected under 35 U.S.C. 102(e) as being anticipated by Juvinall et al. ('079).

#### **Claim 1,18**

Juvinall et al. ('079) discloses a method and apparatus having a sensor device operative to respond to electromagnetic radiation at one or more wavelengths or wavelengths ranges corresponding to electromagnetic energy transmission wherein the objects are rendered opaque by naturally occurring molecular and/or atomic absorptions occurring within material comprising the objects (Col. 2-3, lines 55-12); an electromagnetic radiation source wherein a significant portion of and spectrum therefrom occurs in the ranges wherein the objects are generally opaque (Col. 4, lines 1-28) and a support structure positioned to support the sensor device and source and to maintain the objects in between the source and the sensor device (See Figs. 2-3).

#### **Claim 2,19**

The reference of Juvinall et al. ('079) further discloses a single-element photoconductive (Col. 3, lines 40-50).

Art Unit: 2877

**Claim 3,20**

Juvinall et al. ('079) further discloses a processor operative (Fig. 1, Ref. 26) to receive an output of the sensor device (Fig. 1, Ref. 18, 24) and operate on the output to determine the quality of the objects (Col. 3, lines 49-58).

**Claim 4,21**

The reference of Juvinall et al. ('079) further discloses part detection, tracking, and conveyance systems deployed to interact with the objects and used to both maneuver the object under test into an advantageous position between the sensor element and the source and to provide instrument control signals to both the sensor device and the source (Fig. 2, Ref. 32, 34).

**Claim 11,28**

Juvinall et al. ('079) further discloses a processor (Fig. 1, Ref. 26), which receives the output of the sensor device (Fig. 1, Ref. 18, 24) and operates on the output to determine the quality (Col. 3, lines 49-58).

**Claim 12,29**

The reference of Juvinall et al. ('079) further discloses part detection, tracking, and conveyance systems deployed to interact with the objects and used to both maneuver the object under test into an advantageous position between the sensor element and the source and to provide instrument control signals to both the sensor device and the source (Fig. 2, Ref. 32, 34).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2877

4. Claims 5-10,13-17,22-27,30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Juvinall et al. ('079) in view of Atkinson et al. ('501).

**Claim 6, 14, 23, 31**

Juvinall et al. ('079) discloses the claimed invention except for the source is a black or gray body thermal emitter. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Juvinall et al. ('079) with the black or gray body thermal emitter since it was well known in the art that using thermal emitter allows the inspection in a different environment that are not suited for optical wavelengths.

**Claim 7, 15, 24, 32**

Juvinall et al. ('079) substantially teaches the claimed invention except that it does not show a source is amplitude modulated by a mechanical chopping system in order to increase a signal to noise ratio of the signal. Atkinson et al. ('501) shows that it is known to provide a mechanical chopper for a bottle inspection system. It would have been obvious to combine the device of Juvinall et al. ('079) with the mechanical chopper of Atkinson et al. ('501) for the purpose of providing a means for pulsating the light source without using electronic elements etc...

**Claim 8,25,16, 33**

Juvinall et al. ('079) or the combination with Atkinson et al. ('501) discloses the claimed invention except for the source is a semiconductor LED. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Juvinall et al. ('079) or the combination with Atkinson et al. ('501) with the LED since it was well known in the art that the use of semiconductor LED's have an increased life span and therefore decrease maintenance.

Art Unit: 2877

**Claim 9,17,26, 34**

Juvinall et al. ('079) or the combination with Atkinson et al. ('501) discloses the claimed invention except for the source is pulsed in order to increase a signal to noise ratio of a signal. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Juvinall et al. ('079) or the combination with Atkinson et al. ('501) with the pulsed source since it was well known in the art that that using a pulsed source increases the sensitivity of the measurement therefore making it more accurate.

**Claim 5,13,22,30**

Juvinall et al. ('079) or the combination with Atkinson et al. ('501) discloses the claimed invention except for a rejection system. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Juvinall et al. ('079) or the combination with Atkinson et al. ('501) with the rejection system since it was well known in the art that a rejection system increases the quality of produced products by removing flawed products therefore increases reliability.

**Claim 10,27**

Juvinall et al. ('079) or the combination with Atkinson et al. ('501) discloses the claimed invention except for a one or a two dimensional array of photosensitive elements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Juvinall et al. ('079) or the combination with Atkinson et al. ('501) with the one or two dimensional array elements since it was well known in the art that using a one or two dimensional array increases the sensitivity of the measurement, therefore making the measurement more accurate.


Art Unit: 2877

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Stafira whose telephone number is 703-308-4837.

The examiner can normally be reached on 4/10.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 703-308-4881. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7721 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

  
Michael P. Stafira  
Primary Examiner  
Art Unit 2877

January 12, 2004